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 Docket Number (Optional)  
5074A-000032/REA

In re Application of: Martinelli et al.

Application No. 09/231,854

Filed: 1/14/1999

For: Method and System for Navigating a Catheter Probe

The owner, Surgical Navigation Technologies, Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number 09/494,213, filed on 01-24-2000, as such term is defined in 35 U.S.C. 154 and 173, and as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that: any such patent: granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☒ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☐ The undersigned is an attorney of record. Reg. No. \_\_\_\_\_

12/29/04

Signature

Date

Mark W. Hunter, Group Director Business Development

Typed or printed name

Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) is Included.

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\*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).  
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 09/231,854  
Filing Date: 1/14/1999  
Applicant: Martinelli et al.  
Group Art Unit: 3737  
Examiner: Shawna J. Shaw  
Title: METHOD AND SYS FROM NAVIGATING A  
CATHETER PROBE  
Attorney Docket: 5074A-000032/REA

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Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT UNDER 37 CFR 3.73(b) AND POWER OF ATTORNEY**

Under 37 C.F.R. § 3.73(b), the undersigned hereby states that the below-named Assignee is an assignee in the above-identified Application:

Assignee: Surgical Navigation Technologies, Inc.  
826 Coal Creek Circle  
Coal Creek Corporate Center One  
Louisville, CO 80027

The documentary evidence of a chain of title from the original owner to the Assignee is provided in the Assignment Document(s):

- ☒ filed herewith,  
☐ previously filed,

Reel No. \_\_\_\_\_, Frame No. \_\_\_\_\_.

**POWER OF ATTORNEY**

I hereby appoint each practitioner at Customer No. 27572 of Harness, Dickey & Pierce, P.L.C., my attorney with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

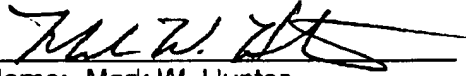
**CORRESPONDENCE ADDRESS**

I request the Patent and Trademark Office to direct all correspondence and telephone calls relative to this application to Customer No. 27572, Harness, Dickey & Pierce, P.L.C., P. O. Box 828, Bloomfield Hills, Michigan 48303 (248) 641-1600.

The undersigned, whose title is supplied below, is empowered to sign this certificate on behalf of the assignee.

RESPECTFULLY SUBMITTED,

Date: 12/29/04

  
Name: Mark W. Hunter  
Title: Group Director Business Development

## ASSIGNMENT

This agreement is made and entered into as of the 22<sup>nd</sup> day of December, 2004, ("Effective Date"), by and between Michael A. Martinelli, Ph.D., an individual, located at 58 Wedgemere Avenue, Winchester, MA 01890, Winchester Development Associates, a sole proprietorship located at 58 Wedgemere Avenue, Winchester, MA 01890, and Enterprise Medical Technology, a Massachusetts corporation having offices at 20 Acorn Park, Cambridge, MA 02140-2390 (hereinafter "Assignors"), and Surgical Navigation Technologies, Inc., a Colorado corporation having a principal office at 826 Coal Creek Circle, Coal Creek Corporate Center One, Louisville, CO 80027 (hereinafter "Assignee").

## BACKGROUND

Assignors collectively own all right, title, and interest in and to all patents and patent applications identified in Schedule A, the inventions disclosed and claimed therein, and all patent applications that rely on any of the patents and/or patent applications for priority (hereinafter "Patents").

Assignors collectively are the owner of certain unpublished research and development information, unpatented inventions, know-how, trade secrets, and technical data relating to the design and development of electromagnetic position tracking systems (hereinafter "Proprietary Information"), a list identifying the Proprietary Information is attached as Schedule B.

Assignee desires to acquire, and Assignors are willing to assign to Assignee, all of Assignors' right, title, and interest in and to the Proprietary Information, the Patents, and any inventions disclosed and/or claimed in the Patents and any improvements therein, all of which will be hereinafter collectively referred to as "Intellectual Property".

## GRANT

NOW, THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby knowledge, Assignors hereby transfer, grant, convey, assign, and relinquish exclusively to Assignee, its successors and assigns, all of Assignors' right, title, and interest in and to the Intellectual Property including the Proprietary Information, as well as the Patents, the inventions claimed in the Patents and any patent applications in any country directed to the inventions claimed therein, all continuations, continuation-in-part applications, divisionals, reissues, reexaminations, renewals and extensions thereof, and all rights to claim priority on the basis of the Patents or the patent applications, and all accrued causes of action for damages for infringement thereof.

In furtherance of this Agreement, Assignors hereby acknowledge that, from the Effective Date forward, Assignee has succeeded to all of Assignors' right, title, and standing to receive all rights and benefits pertaining to the Intellectual Property, institute and prosecute all suits and proceedings, and take all actions that Assignee, in its sole discretion, may deem necessary or proper to collect, assert, or enforce any claim, right, or title of any kind under any and all of the Intellectual Property, whether arising before or after the Effective Date, defend and compromise any and all such actions, suits, or proceedings relating to such transferred and assigned rights, title, interest, and benefits, and do all other such acts and things in relation thereto as Assignee, in its sole discretion, deems advisable. Assignors hereby authorize and request the Commissioner of Patents and

Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above to issue all Letters Patents for inventions to Assignee, its successors and assigns, in accordance with the terms of this agreement.

Assignors shall execute and deliver to Assignee, from time to time after the date hereof upon the request of Assignee, such further conveyance instruments as may be necessary or desirable to evidence more fully the transfer of ownership of all the Intellectual Property to Assignee, or the original ownership of all the Intellectual Property on the part of Assignors, to the fullest extent possible. Assignors further agree to provide testimony in connection with any proceeding affecting the right, title, interest, or benefit of Assignee in and to the Intellectual Property and to perform any other acts deemed necessary to carry out the intent of this Agreement. Assignee shall reimburse Assignors for any and all costs reasonably incurred by Assignors in performance under this paragraph.

This Agreement shall inure to the benefit of, and be binding on, the parties hereto together with their respective legal representatives, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement under seal the day and year first above written.

For and on behalf of  
MICHAEL A. MARTINELLI, PH.D.

By: Michael A. Martinelli

SWORN TO BEFORE ME

This 31st day of July 2003  
Gail P. Dasilva  
Notary Public

MY COMMISSION EXPIRES  
JANUARY 20, 2006

For and on behalf of  
WINCHESTER DEVELOPMENT ASSOCIATES

By: \_\_\_\_\_  
Full Name: Michael A. Martinelli  
Capacity: President

SWORN TO BEFORE ME

This 31st day of July 2003  
Gail P. Dasilva  
Notary Public

For and on behalf of  
ENTERPRISE MEDICAL TECHNOLOGY

By: Stephen S. Gray  
Full Name: Stephen S. Gray  
Capacity: Plan Administrator

SWORN TO BEFORE ME

This 22nd day of December  
Chris Chel  
Notary Public

hereby declare acceptance of the assigned rights as mentioned above:

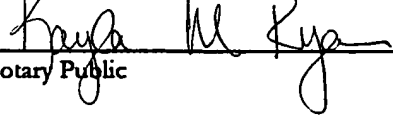
For and on behalf of  
SURGICAL NAVIGATION TECHNOLOGIES, INC.

SWORN TO BEFORE ME

By: 

This 27th day of December, 2004.

Full Name: MARK WILLIAM HUNTER

  
Notary Public

Capacity: SR. DIRECTOR, BUSINESS DEVELOPMENT

# SCHEDULE A

TITLE	INVENTOR(S) APPLICANT	PATENT NO.	ISSUE DATE	SERIAL NO. PUBLICATION NO.	FILING DATE PUBLICATION DATE
Coil Structures and Methods for Generating Magnetic Fields	Brad Jacob Paul Kessman Michael Martinelli			60/161,990	October 28, 1999
Coil Structures and Methods for Generating Magnetic Fields	Michael Martinelli Brad Jacob Mark W. Hunter			09/698,896	October 27, 2000
Coil Structures and Methods for Generating Magnetic Fields	Michael Martinelli Brad Jacob Mark W. Hunter			EP00973969.9	
Coil Structures and Methods for Generating Magnetic Fields	Michael Martinelli Brad Jacob Mark W. Hunter			US00/29733 WO200131466	October 27, 2000 May 3, 2001
Coil Structures and Methods for Generating Magnetic Fields	Michael Martinelli Brad Jacob Mark W. Hunter			AU200112408 AU200112408(A)	October 27, 2000 May 8, 2001
Patient-Shielding and Coil System	Michael Martinelli Paul Kessman Brad Jacob			60/161,989	October 28, 1999
Patient-Shielding and Coil System	Michael Martinelli Brad Jacob Mark W. Hunter			09/698,895	October 27, 2000
Patient-Shielding and Coil System	Winchester Development Associates and Enterprise Medical Technology, Inc. Michael Martinelli Brad Jacob Mark W. Hunter	WO01/30437	May 3, 2001	US00/29730	October 27, 2000

SCHEDULE A

TITLE	INVENTOR(S) APPLICANT	PATENT NO.	ISSUE DATE	SERIAL NO. PUBLICATION NO.	FILING DATE PUBLICATION DATE
Patient-Shielding and Coil System	Michael Martinelli Brad Jascob Mark W. Hunter			EP00972380.0 EP1257317	October 27, 2000 November 20, 2002
Patient-Shielding and Coil System	Michael Martinelli Brad Jascob Mark W. Hunter			AU2001011049	October 27, 2000 May 8, 2001
Method and System for Navigating a Catheter Probe in the Presence of Field-Influencing Objects	Michael Martinelli Paul Kessman Brad Jascob			60/161,991	October 28, 1999
Method and System for Navigating A Catheter Probe in the Presence of Field-Influencing Objects	Michael Martinelli Paul Kessman Brad Jascob	6,493,573	December 10, 2002	09/589,779	June 8, 2000
Method and System for Navigating A Catheter Probe in the Presence of Field-Influencing Objects	Winchester Development Associates and Enterprise Medical Technology, Inc. Michael Martinelli Paul Kessman Brad Jascob	WO01/30,256	May 3, 2001	PCT/US00/29721 WO200130256	October 27, 2000 May 8, 2001
Method and System for Navigating A Catheter Probe in the Presence of Field-Influencing Objects	Michael Martinelli Paul Kessman Brad Jascob			CA2,388,570 CA2,388,570AA	October 27, 2000 May 3, 2001
Method and System for Navigating A Catheter Probe in the Presence of Field-Influencing Objects	Michael Martinelli Paul Kessman Brad Jascob			EP00972378.4 EP1227767	October 27, 2000 August 7, 2000
Method and System for Navigating A Catheter Probe in the Presence of Field-Influencing Objects	Michael Martinelli Paul Kessman Brad Jascob			AU200111047	October 27, 2000 May 8, 2001



# SCHEDULE A

TITLE	INVENTOR(S) APPLICANT	PATENT NO.	ISSUE DATE	SERIAL NO. PUBLICATION NO.	FILING DATE PUBLICATION DATE
Method and System for Navigating A Catheter Probe in The Presence of Field- Influencing Objects	Michael Martinelli Paul Kessman Brad Jascob			10/252,258 20030117135	September 23, 2002 June 26, 2003
Method and System for Navigating a Catheter Probe	Michael Martinelli	5,592,939	January 14, 1997	490,342	June 14, 1995
Method and System for Navigating a Catheter Probe	Michael Martinelli Wayne Haase			09/231,854	January 14, 1999
Method And System For Navigating A Catheter Probe	Michael Martinelli			09/494,213	January 24, 2000
Method and System for Navigating a Catheter Probe	Winchester Development Associates <sup>1</sup>			US96/10050 WO9700043	June 11, 1996 January 3, 1997
Method and System for Navigating a Catheter Probe	Michael Martinelli			EP96919360.6 EP836416	June 11, 1996 April 22, 1998
Method and System for Navigating a Catheter Probe	Michael Martinelli			JP97503261 JP11510406	June 11, 1996 September 14, 1999
Surgical Sensor	Mark W. Hunter Sheri McCoid Paul Kessman	6,499,488	December 31, 2002	09/428,721	October 28, 1999
Surgical Sensor	Surgical Navigation Technologies			DE10053457.0	October 27, 2000
Surgical Sensor	Winchester Development Associates			PCT/US00/29880 WO200130257	October 27, 2000 May 3, 2001

<sup>1</sup> Subject to co-inventorship claim

# SCHEDULE A

TITLE	INVENTOR(S) APPLICANT	PATENT NO.	ISSUE DATE	SERIAL NO. PUBLICATION NO.	FILING DATE PUBLICATION DATE
Surgical Sensor	Michael Martinelli Mark W. Hunter Sheri McCoid Paul Kessman			EP00975487.0 EP1257223	October 27, 2000 November 20, 2002
Surgical Sensor	Michael Martinelli Mark W. Hunter Sheri McCoid Paul Kessman			DE10085137.1	October 27, 2000 November 7, 2002
Surgical Sensor	Michael Martinelli Mark W. Hunter Sheri McCoid Paul Kessman			AU200113533	October 27, 2000 May 8, 2001
Surgical Sensor	Michael A. Martinelli Mark W. Hunter Sheri McCoid Paul Kessman			10/289,869 20030066538	November 7, 2002 April 10, 2003
System and Method for Navigating a Multiple Electrode Catheter	Michael A. Martinelli	6,104,944	August 15, 2000	08/972,061	November 17, 1997
Acoustic Image System and Method	Michael A. Martinelli Peter von Thuna	4,821,731	April 18, 1989	129,830	December 8, 1987
Acoustic Image System and Method	Michael A. Martinelli Peter von Thuna	JP2765738	April 3, 1998	JP500493/1989	September 30, 1988
Acoustic Image System and Method	Michael A. Martinelli Peter von Thuna			WO88US3366 WO8905123	September 30, 1988 June 15, 1989
Acoustic Image System and Method	Michael A. Martinelli Peter von Thuna			AU8927965A AU8927965A1 AU620580B2	September 30, 1988 July 5, 1989 February 20, 1992

TITLE	INVENTOR(S) APPLICANT	PATENT NO.	ISSUE DATE	SERIAL NO. PUBLICATION NO.	FILING DATE PUBLICATION DATE
Acoustic Image System and Method	Michael A. Martinelli Peter von Thuna	CA1,293,048	December 10, 1991	EP89900388 EP393113A1 EP393113A4	September 30, 1988 October 24, 1990 September 25, 1991
Acoustic Image System and Method	Michael A. Martinelli Peter von Thuna	CA1,293,048	December 10, 1991	CA580,043	October 13, 1988
Ultrasonic Transducer	Michael A. Martinelli	4,862,893	September 5, 1989	151,394	February 2, 1988
Ultrasonic Transducer	Michael A. Martinelli			WO88US4243 WO8906934	November 29, 1988 August 10, 1989
Ultrasonic Transducer	Michael A. Martinelli			AU8929288	November 29, 1988 August 25, 1989
Ultrasonic Transducer	Michael A. Martinelli	5,002,058	March 26, 1991	340,050	April 18, 1989
Method of Making A Transducer	Michael A. Martinelli	4,977,655	December 18, 1990	340,383	April 18, 1989



## SCHEDULE B

### Invention Disclosures Entitled:

- Navigation Catheter Based Coronary Artery Bypass;
- Self-Calibrating System for Navigating a Catheter Probe;
- Patient Shielding System for Magnetic Navigation System;
- High U-Core Ultra Small Navigated Sensor;
- Soft Tissue Morphed Display;
- Correcting Navigation Errors Due to Nearby Objects that are Electrically Conductive, March 20, 1999 (with input from Surgical Navigation Technologies, Inc.);
- Non-Overlapping Navigation Coil Structure, March 21, 1999 (including documents relating to removal of vertical end coils);
- Calculating Magnetic Field Equations with Infinite Conductive Sheet or EM Shield Method (O.R. table correction), March 3, 1999;
- Navigating a Ferromagnetic Electrically Conductive Tool Simultaneously with the Navigation of a Catheter, April 15, 1999;
- Disturbance Correction Using Known Sensor Placement – Error Elimination Technique, April 20, 1999;
- Disclosure 5/9/99: Correcting Navigation Errors Due to Nearby Objects that are Electrically Conductive – A Generalized Approach (Background – see 3/20/99 disclosure).

### Know-How Directed To:

- Product Concept Device;
- Prototype Designs:
  - i). Coils set design software and shielding technology;
  - ii). Coil driver technology;
  - iii). Pre-amplifier;
  - iv). Signal extraction.
- Navigation Software and Self Calibration;
- Fabrication Techniques and Material Suppliers/Contractors;
- Know-how and trade secrets acquired by EMT from Intra-Sonix, Inc.

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